

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
129	129	Low	NAWA	28.9	73.3	2,377.2	n/a
				Score/Value	Rank		
INSTITUTIONS				27.5	129	◇	
1.1	Political environment	0.0	129	◇			
1.1.1	Political and operational stability*.....	0.0	129	◇			
1.1.2	Government effectiveness*.....	0.0	129	◇			
1.2	Regulatory environment	36.0	124	◇			
1.2.1	Regulatory quality*.....	3.0	128	◇			
1.2.2	Rule of law*.....	0.0	129	◇			
1.2.3	Cost of redundancy dismissal, salary weeks.....	27.4	107	◇			
1.3	Business environment	46.5	127	◇			
1.3.1	Ease of starting a business*.....	67.0	125	◇			
1.3.2	Ease of resolving insolvency*.....	25.9	125	◇			
HUMAN CAPITAL & RESEARCH				12.5	[117]		
2.1	Education	26.0	[116]				
2.1.1	Expenditure on education, % GDP.....	5.2	42	●			
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	12.0	88				
2.1.3	School life expectancy, years.....	9.0	110				
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a				
2.1.5	Pupil-teacher ratio, secondary.....	n/a	n/a				
2.2	Tertiary education	11.4	109				
2.2.1	Tertiary enrolment, % gross.....	10.0	109				
2.2.2	Graduates in science & engineering, %.....	n/a	n/a				
2.2.3	Tertiary inbound mobility, %.....	4.3	50	●			
2.3	Research & development (R&D)	0.0	[120]				
2.3.1	Researchers, FTE/mn pop.....	n/a	n/a				
2.3.2	Gross expenditure on R&D, % GDP.....	n/a	n/a				
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....	0.0	43	◇			
2.3.4	QS university ranking, average score top 3*.....	0.0	78	◇			
INFRASTRUCTURE				21.5	128	◇	
3.1	Information & communication technologies (ICTs)	10.8	[129]				
3.1.1	ICT access*.....	n/a	n/a				
3.1.2	ICT use*.....	n/a	n/a				
3.1.3	Government's online service*.....	9.7	128	◇			
3.1.4	E-participation*.....	11.8	128	◇			
3.2	General infrastructure	2.5	128	◇			
3.2.1	Electricity output, kWh/mn pop.....	182.9	114				
3.2.2	Logistics performance*.....	9.4	117				
3.2.3	Gross capital formation, % GDP.....	5.9	125	◇			
3.3	Ecological sustainability	51.2	26	● ◆			
3.3.1	GDP/unit of energy use.....	21.3	4	● ◆			
3.3.2	Environmental performance*.....	n/a	n/a				
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..	0.0	128	◇			
MARKET SOPHISTICATION				35.0	119		
4.1	Credit	0.4	129	◇			
4.1.1	Ease of getting credit*.....	0.0	129	◇			
4.1.2	Domestic credit to private sector, % GDP.....	5.6	126	◇			
4.1.3	Microfinance gross loans, % GDP.....	0.1	56	●			
4.2	Investment	53.3	[32]				
4.2.1	Ease of protecting minority investors*.....	53.3	87	●			
4.2.2	Market capitalization, % GDP.....	n/a	n/a				
4.2.3	Venture capital deals/bn PPP\$ GDP.....	n/a	n/a				
4.3	Trade, competition, & market scale	51.2	102				
4.3.1	Applied tariff rate, weighted avg., %.....	5.0	87	● ◆			
4.3.2	Intensity of local competition*.....	50.4	123	◇			
4.3.3	Domestic market scale, bn PPP\$.....	73.3	89	●			
BUSINESS SOPHISTICATION				16.3	[129]		
5.1	Knowledge workers	6.7	[127]				
5.1.1	Knowledge-intensive employment, %.....	1.6	116				
5.1.2	Firms offering formal training, % firms.....	14.3	85	◇			
5.1.3	GERD performed by business, % GDP.....	n/a	n/a				
5.1.4	GERD financed by business, %.....	n/a	n/a				
5.1.5	Females employed w/advanced degrees, %.....	1.1	106				
5.2	Innovation linkages	15.8	[117]				
5.2.1	University/industry research collaboration*.....	19.5	125	◇			
5.2.2	State of cluster development*.....	29.9	121	◇			
5.2.3	GERD financed by abroad, %.....	n/a	n/a				
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	n/a	n/a				
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	93	◇			
5.3	Knowledge absorption	26.3	98				
5.3.1	Intellectual property payments, % total trade.....	1.6	21	● ◆			
5.3.2	High-tech imports, % total trade.....	6.3	88	●			
5.3.3	ICT services imports, % total trade.....	0.4	109				
5.3.4	FDI net inflows, % GDP.....	-0.8	124	◇			
5.3.5	Research talent, % in business enterprise.....	n/a	n/a				
KNOWLEDGE & TECHNOLOGY OUTPUTS				3.8	128	◇	
6.1	Knowledge creation	2.1	122				
6.1.1	Patents by origin/bn PPP\$ GDP.....	0.2	98				
6.1.2	PCT patents by origin/bn PPP\$ GDP.....	n/a	n/a				
6.1.3	Utility models by origin/bn PPP\$ GDP.....	0.0	65	◇			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	3.1	103				
6.1.5	Citable documents H-index.....	1.9	119				
6.2	Knowledge impact	0.6	129	◇			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....	-11.1	112	◇			
6.2.2	New businesses/th pop. 15-64.....	n/a	n/a				
6.2.3	Computer software spending, % GDP.....	0.0	110				
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	0.0	129	◇			
6.2.5	High- & medium-high-tech manufactures, %.....	0.0	104	◇			
6.3	Knowledge diffusion	8.8	111				
6.3.1	Intellectual property receipts, % total trade.....	0.2	35	● ◆			
6.3.2	High-tech net exports, % total trade.....	0.1	117				
6.3.3	ICT services exports, % total trade.....	0.7	89				
6.3.4	FDI net outflows, % GDP.....	0.0	110				
CREATIVE OUTPUTS				9.0	127		
7.1	Intangible assets	17.9	126				
7.1.1	Trademarks by origin/bn PPP\$ GDP.....	39.9	66	● ◆			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	0.3	94				
7.1.3	ICTs & business model creation*.....	24.3	125	◇			
7.1.4	ICTs & organizational model creation*.....	21.7	125	◇			
7.2	Creative goods & services	0.0	[129]				
7.2.1	Cultural & creative services exports, % total trade.....	n/a	n/a				
7.2.2	National feature films/mn pop. 15-69.....	n/a	n/a				
7.2.3	Entertainment & Media market/th pop. 15-69.....	0.0	63	◇			
7.2.4	Printing & other media, % manufacturing.....	n/a	n/a				
7.2.5	Creative goods exports, % total trade.....	0.0	123				
7.3	Online creativity	0.4	113				
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	0.4	113				
7.3.2	Country-code TLDs/th pop. 15-69.....	0.0	126				
7.3.3	Wikipedia edits/mn pop. 15-69.....	1.1	102				
7.3.4	Mobile app creation/bn PPP\$ GDP.....	0.3	76				

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question. ⊕ indicates that the economy's data are older than the base year; see Appendix II for details, including the year of the data, at <http://globalinnovationindex.org>. Square brackets [] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.